

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.**

# UK Patent Application GB 2 225 889 A

(43) Date of A publication 13.06.1990

(21) Application No 8925218.3

(22) Date of filing 08.11.1989

(30) Priority data

(31) 8826245

(32) 09.11.1988

(33) GB

(51) INT CL<sup>9</sup>  
G07F 17/34

(52) UK CL (Edition K)  
G4V VAA V118  
U1S S1174

(56) Documents cited

GB 2119991 A GB 2119145 A GB 2100492 A  
GB 1543734 A GB 1528507 A

(58) Field of search  
UK CL (Edition J) G4V VAA  
INT CL<sup>9</sup> G07F 17/34

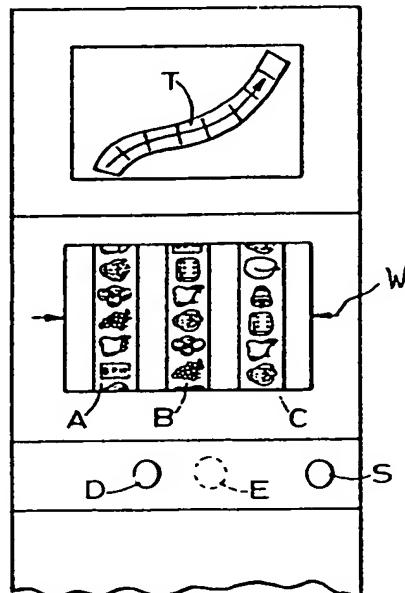
(71) Applicant  
Bell-Fruit Manufacturing Company Limited  
(Incorporated in the United Kingdom)  
Leen Gate, Lenton, Nottingham, NG7 2ND,  
United Kingdom

(72) Inventor  
Peter Farrell

(74) Agent and/or Address for Service  
Eric Potter & Clarkson  
27 South Street, Reading, Berkshire, RG1 4QU,  
United Kingdom

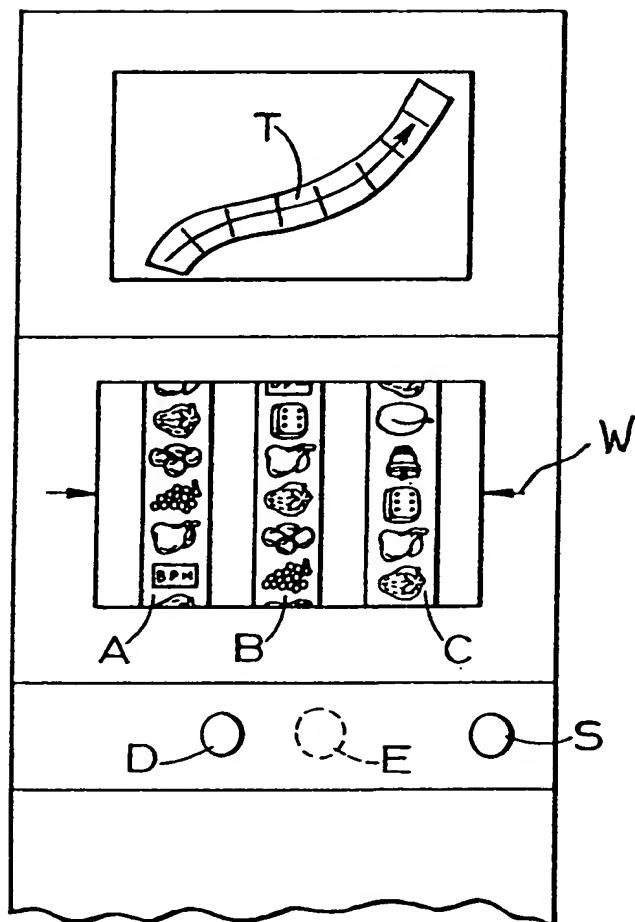
## (54) Gaming and amusement machines

(57) In a fruit machine, after a non-winning game and either at random or as a feature, at least one reel is rotated at a speed which is lower than that during a normal game and is halted by the player so as to try to obtain a win. One of the reels may be rotated at the normal speed and halted at random and a second at the slower speed and halted by the player. There could be a third reel rotated at a different slower speed, again halted by the player. Alternatively all the reels may be driven simultaneously at the slower speed. The slower speed is such that a player can distinguish individual symbols on the rotating reels.



GB 2 225 889 A

1/1



GAMING AND AMUSEMENT MACHINES

This invention relates to gaming or amusement-with-prizes machines of the kind generally known as 'fruit machines', in which three, or sometimes more, reels carrying symbols are set in rotation and then stop in turn at random intervals and if the resulting combination of symbols on the three (or more) reels appearing on a given line in the display, the 'win line', is one which has been designated a winning combination, the player receives an award or a credit. Instead of actual reels, it is known to use other forms of display which simulate rotating reels to a greater or lesser degree, for example the Panascope, or a video screen on which images of the symbols appear. Such machines will hereinafter be referred to as of the kind set forth.

Many special features are provided nowadays in fruit machines, indeed they have to some extent taken over from the basic game, in that most of the bigger wins are obtained by the features rather than by the initial result when the reels first come to a halt. In a so called 'ladder' or 'trail' feature, steps in the ladder or trail may be illuminated as a result of certain symbols, e.g. symbols bearing superimposed numbers, appearing on the win line. When the 'ladder or 'trail' is completed, a jackpot prize or another 'jackpot feature' which may result in a jackpot prize may be awarded.

On certain occasions after a non-winning game, determined for example at random or when a particular symbol such as a "?" appears on the win line, a so called 'skill stop' or 'pseudo skill stop' feature may be provided to assist completion of a ladder or trail.

5 In a 'skill stop' or 'pseudo skill stop' feature steps in the 'ladder' or 'trail' are illuminated either sequentially along the 'ladder' or 'trail' or for a brief period of time at random positions in the feature by pressing a button at the instant when the end step of the 'ladder' or 'trail' is illuminated.

10 Amongst the many special features which are provided nowadays in fruit machines, one which has proved popular is the so-called 'nudge' feature, by which the player is sometimes given the opportunity at the end of a game which did not result in a win, to advance one or more of the reels by a single step, or 15 sometimes more than one step, to bring a fresh symbol onto the win line and thereby change what was a losing combination into a winning one. This feature may be offered apparently at random after a non-winning game, or a number of 'nudges' determined in one of a variety 20 of ways may be awarded as a 'jackpot feature' after completion of a 'ladder' or 'trail'.

25 Another well known special feature provided nowadays in some fruit machines is the so-called 'hold and match' feature in which the player is given the opportunity to hold one of the symbols on the win line and the machine causes another reel or the other reels to re-spin automatically to bring onto the win line at least one other symbol which matches the held symbol.

30 The aim of the invention is to provide a still further and particularly attractive special feature on these lines.

35 According to the present invention there is provided a gaming or amusement-with-prizes machine of

the kind set forth which has, in addition to the normal reel-spinning mechanism (or its equivalent), means for rotating (or for simulating the rotation of) at least one of the reels at a slower speed than the speed of 5 rotation in a normal game and manually-operable control means for halting the or each reel when it is rotating at the slower speed.

10 The means for rotating one or more of the reels at a slower speed than normal may conveniently comprise, in a conventional fruit machine, a variable speed stepper motor.

15 It is already known to use variable speed stepper motors in fruit machines to allow minor adjustment of the speed of rotation of the reels in a normal game. Hitherto, however, we are not aware of a fruit machine in which a reel (or its equivalent) is rotated at a speed slow enough for the player to be able to 20 distinguish the individual symbols on a reel when it is rotating and in which the player has the opportunity to stop the reel when a particular symbol is on the win line.

25 The means for rotating the reels at a slower speed than normal may be used in a variety of novel special features which may be awarded either at random or on completion of a so-called 'ladder' or 'trail'.

30 In one type of special feature which uses the means for rotating the reels at a slower speed, all of the reels are rotated at the same slow speed and a single manually-operable control is provided which is used by the player to halt all of the reels at the same 35 time. In such a feature the player has to decide which line of symbols across the reels will give him the best

win and he then attempts to stop the reels when the appropriate line of symbols is passing the win line. In variations on this feature the reels may be rotated at slightly different speeds, and/or separate control means for halting each reel individually may be provided in order to increase the number of different possible combinations or symbols available to the player.

10 In another type of special feature utilising the present invention, at least one of the reels is rotated at normal speed and is arranged to come to a halt at a random position, at least one other reel is rotated at a slower speed than normal and the player attempts to 15 operate the control means to halt that other reel in such a position that on completion of the feature at least two of the symbols which are on the win line match and therefore form part of a winning combination. One such feature of this type may be 20 applied to a three-reel fruit machine in which the first reel is rotated at normal speed and comes to halt at a random position, the second reel is rotated at a very slow speed so that it is relatively easy for the player to use the control means to stop the second reel 25 with a symbol on the win line which matches the symbol of the first reel which is on the win line, and then the third reel is rotated at a speed slower than normal, but faster than the speed at which the second reel is rotated so that it is more difficult for the player to stop the third reel with a matching symbol 30 on the win line. In such a feature it is relatively easy for a player to obtain a 'pair-win' of two matching symbols but more difficult to obtain a 'pair win' of three matching symbols.

Some examples of fruit machines incorporating the invention will now be described by way of example with reference to the accompany drawing which illustrates, purely diagrammatically, the upper part of the front of 5 such a machine.

The machine in the example has three reels, A, B and C. These may be actual reels, or they could be represented by the equivalent Panascope display or 10 formed by images of reels on a video screen. During a normal game, initiated (after insertion of a coin or token, or if there is a credit in the machine) by pressing a start button S, the three reels are all rotated at a given relatively fast speed and stop at 15 random, or in sequence. If one of a certain number of combinations of symbols appears on the win line (shown at W) then an award is made. If not, then the player may or may not be given a step on a 'trail' T illustrated above the reels. There may also be the 20 usual 'nudge' and/or 'hold' features, controlled by buttons which are not shown.

In a first version of the machine according to the invention there is an arrangement so that, after a 25 non-winning game, all three reels are rotated at speeds substantially slower than that during the game and the player is given the chance to halt them all simultaneously by the use of a button D. They are rotating so slowly that he can actually see the 30 individual symbols as they approach the win-line, and he can therefore use his skill to bring them to a halt in a position such as to produce a win. If the reels are anyway driven by stepper motors it is a relatively 35 easy matter to arrange that for this feature the motors are fed with signals which produce the appropriate lower speed. They are preferably only rotated at the

slow speed for a limited time, so the player has to make up his mind quickly.

5        In an alternative version, after a non-winning game, the reel A is re-spun at the normal speed used in a game, and then comes to a halt in a random position, and the reel B is spun at the substantially lower speed and halted by the use of the button D with the aim of stopping it at a position which, in combination with 10      the symbol on the win-line on reel A, will produce a winning combination. In a further development of this, the reel C is also rotated at a slower speed than normal, and is under the control of a second button E. Whilst the reel B rotates really slowly, 15      making it relatively easy for the user to bring a potentially winning symbol onto the 'win' line, the speed of the reel C is significantly higher (though still lower than the normal speed) and so although it is easy for the player to obtain a 'pair win', it will 20      be much harder for him to obtain on the win-line, a combination of three symbols producing a win, a so-called 'trial win'.

25      It will be understood that many variations and permutations are possible within the basic invention; for example the invention could be applied mutatis mutandi to a four-reel machine, and the speed of rotation when the feature in question is available may be varied according to circumstances, for example so 30      that the chance of the player being able to achieve a win by halting the slowly-spinning reels may occasionally at random be made easier than at other times, for example if there has been no win in a predetermined number of preceding games. The 35      important thing is that the rotation of the reels, or of at least one of the reels, is at a speed

significantly lower than that in a 'normal' game, which preceded the feature, and the player is given a significant chance of achieving a win by his skill.

5

10

15

20

25

30

35

Claims

1. A gaming or amusement-with-prizes machine of the kind set forth in which, in addition to the normal reel-spinning mechanism (or its equivalent) there are means for rotating (or simulating the rotation of) at least one of the reels at a slower speed than the normal speed of rotation in a normal game and manually-operable control means for halting the or each reel when it is rotating at the slower speed.
2. A machine according to claim 1 in which all the reels in the machine are capable of being driven simultaneously at the said slower speed, and the manual control means act to halt all the reels.
3. A machine according to claim 1 in which at least one of the reels is rotated at the said 'normal' speed and stopped at random while at least one other reel is rotated at the said slower speed and is halted by the manual control means.
4. A machine according to claim 1 or claim 3 in which at least one reel is rotated at one slower speed and halted by one manually-operable control means, and at least one other reel is rotated at a different slower speed and halted by a second manually-operable control means.
5. A gaming or amusement-with-prizes machines of the kind set forth, substantially or described with reference to the accompany drawings.